

## Local Law 37 of 2005 Changes to Pesticides Listed as Carcinogens or Developmental Toxins since April 1, 2005

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## **BACKGROUND**

In May 2005, Local Law 37 ((LL37) introduced by the New York City Council as Intro 329) was signed into law. LL37 set forth a number of requirements related to the use of pesticides on New York City property with the overall goal of reducing the City's use of hazardous pesticides. LL37 prohibited the use on city property of pesticides meeting any of three criteria:

- 1) Classified as Toxicity Category 1 by the United States Environmental Protection Agency (EPA);
- 2) Classified as a known, likely, probable or possible human carcinogens by the Office of Pesticide Programs of the EPA as of April 1, 2005;
- 3) Classified as developmental toxins by California Office of Environmental Health Hazard Assessment (COEHHS) as of April 1, 2005.

In LL37, the latter two criteria are based on pesticide classification lists identifying carcinogens or developmental toxins as constituted at the time the law went into effect (April 1, 2005). No chemical can be prohibited or removed from prohibition based on subsequent changes to these two lists without amending the NYC Administrative Code to update the effective dates of the reference lists. Under LL37 the Department of Health and Mental Hygiene must report annually to New York City Council on changes made to the referenced carcinogen and developmental toxin lists since the NYC LL37 prohibition list was first established on April 1, 2005. The Department of Health and Mental Hygiene must also report on use by city agencies of products added to either list. Below, we detail the list changes as of January 1, 2016 and city agency usage in 2014, the most recent year for which complete data is available.

## CHANGES TO THE U.S. EPA LIST OF CARCINOGENIC PESTICIDES

**Table 1** below lists chemicals that were determined to have carcinogenic properties by the EPA Office of Pesticide Programs since April 1, 2005 and the quantities of pesticide products containing each of those chemicals used by city agencies in 2014. Through 2015, no new chemicals were added to the list of carcinogenic chemicals. Two chemicals, Flonicamid and Metaldehyde, were used by agencies in 2014 in slightly higher quantity and reduced amount respectively than the previous year by weight.

**Table 2** lists the chemicals that were removed from the EPA carcinogen list since April 1, 2005 because they are no longer classified as having carcinogenic properties by the EPA Office of Pesticides. Pyrethrins, the botanical extracts of the chrysanthemum flower, are a very common active ingredient in various insecticide formulations and were removed from the list in 2008. Many other products containing these ingredients have been out of use in recent years.

Table 1: Chemicals added to U.S. EPA list of carcinogenic pesticides

|                                   |   |             | Number of<br>EPA-<br>registered<br>products<br>containing | Total quantity<br>used by NYC<br>agencies in<br>2014 |
|-----------------------------------|---|-------------|---|--|
| Chemical name                     | EPA cancer classification   | Report Date | chemical  |  |
| Penoxsulam                        | Suggestive Evidence of Carcinogenicity, but Not Sufficient to Assess Human Carcinogenic Potential | 3/24/2004   | 55  | None   |
| Metaldehyde                       | Suggestive Evidence of Carcinogenic Potential   | 6/23/2005   | 24  | 2.3 pounds   |
| S-Dimethenamid                    | Group CPossible Human<br>Carcinogen   | 8/27/2008   | 13  | None   |
| Sedaxane                          | Likely To Be Carcinogenic To<br>Humans  | 5/18/2011   | 13  | None   |
| Penflufen                         | Suggestive Evidence of Carcinogenic Potential   | 3/30/2011   | 9   | None   |
| Flonicamid                        | Likely to be Carcinogenic to Humans   | 2/24/2005   | 8   | 1.0 pounds   |
| Penthiopyrad                      | Suggestive Evidence of Carcinogenic Potential   | 10/18/2011  | 8   | None   |
| Pyrasulfotole                     | Likely to be Carcinogenic to Humans   | 5/17/2007   | 6   | None   |
| Orthosulfamuron                   | Suggestive Evidence Of Carcinogenic Potential   | 10/26/2006  | 5   | None   |
| Dichloran                         | Suggestive Evidence Of Carcinogenic Potential   | 5/11/2006   | 4   | None   |
| Ethaboxam                         | Suggestive Evidence of Carcinogenic Potential   | 3/23/2006   | 4   | None   |
| Resmethrin                        | Likely to be Carcinogenic to Humans   | 5/25/2005   | 3   | None   |
| Tembotrione                       | Suggestive Evidence of Carcinogenic Potential   | 5/22/2007   | 3   | None   |
| Cyflumetofen                      | Suggestive Evidence Of Carcinogenic Potential   | 12/30/2013  | 3   | None   |
| Spirodiclofen                     | Likely to be Carcinogenic to Humans   | 6/10/2004   | 2   | None   |
| Metrafenone                       | Suggestive Evidence of Carcinogenic Potential   | 7/6/2006    | 2   | None   |
| Fluensulfone                      | Suggestive Evidence Of Carcinogenic Potential   | 5/7/2014    | 2   | None   |
| Furfural                          | Likely To Be Carcinogenic To<br>Humans  | 2/6/2014    | 2   | None   |
| Sodium<br>bichromate<br>dihydrate | Likely To Be Carcinogenic To<br>Humans  | 7/1/2009    | 1   | None   |
| Thiacloprid                       | Likely to be Carcinogenic to Humans   | 10/31/2012  | 0   | None   |
| Pirimicarb                        | Suggestive Evidence of Carcinogenicity, but not sufficient to assess human carcinogenic potential | 7/13/2005   | 0   | None   |

| Chemical name          | EPA cancer classification   | Report Date | Number of<br>EPA-<br>registered<br>products<br>containing<br>chemical | Total quantity<br>used by NYC<br>agencies in<br>2014 |
|------------------------|---|-------------|---|--|
| Dithianon              | Suggestive Evidence of Carcinogenic Potential                                     | 2/23/2006   | 0   | None   |
| Benthiavalicarb-       | Liberto ha Caraina maria ta Ulumana   | 10/18/2005  | 0   | None   |
| isopropyl<br>Cumyluron | Likely to be Carcinogenic to Humans Suggestive Evidence of Carcinogenic Potential | 6/11/2008   | 0   | None   |
| Mepanipyrim            | Likely to be Carcinogenic to Humans   | 4/20/2004   | 0   | None   |
| Fenpropidin            | Suggestive Evidence of Carcinogenic Potential                                     | 6/9/2009    | 0   | None   |
| Sodium dichromate      | Likely to be Carcinogenic to Humans   | 7/1/2009    | 0   | None   |
| Hexavalent<br>Chromium |   | 7/1/2009    |   | None   |
| (CrVI)                 | Likely to be Carcinogenic to Humans   |             | 0   |  |
| Cyflufenamid           | Likely to be Carcinogenic to Humans   | 6/22/2010   | 0   | None   |
| Ethiprole              | Suggestive Evidence of Carcinogenic Potential                                     | 10/28/2010  | 0   | None   |
| Isopyrazam             | Likely To Be Carcinogenic To<br>Humans  | 2/2/2011    | 0   | None   |
| Pyrazachlor            | Likely To Be Carcinogenic To<br>Humans  | 9/20/2011   | 0   | None   |

(Sources: Chemicals Evaluated for Carcinogenic Potential, Office of Pesticide Programs, U.S. EPA, 2015; EPA Pesticide Product Information System; NYC LL37 Agency Reporting Data)

Table 2: Chemicals removed from the U.S. EPA list of carcinogenic pesticides

|                                 |  |             | Number of EPA-<br>registered products<br>that contain this |  |
|---------------------------------|--|-------------|--|--|
| Chemical name                   | EPA cancer classification  | Report Date | chemical   |  |
| Pyrethrins                      | Not Likely To Be Carcinogenic To Humans at doses that do not cause mitogenic repsonse in the liver cell proliferation          | 2/14/2008   | 576  |  |
| Thiamethoxam                    | Not Likely To Be Carcinogenic To Humans at doses that do not cause a mitogenic response in the liver                           | 6/13/2005   | 79   |  |
| Ortho-phenylphenol              | Multiple Descriptors: Not Likely To Be<br>Carcinogenic To Humans At Doses That Do<br>Not Alter Rat Thyroid Hormone Homeostasis | 10/12/2005  | 75   |  |
| Ethofenprox                     | Not Likely To Be Carcinogenic To Humans  | 2/8/2006    | 56   |  |
| Fomesafen                       | Not Likely To Be Carcinogenic To Humans  | 11/3/2005   | 43   |  |
| Simazine                        | Not Likely to be Carcinogenic to Humans  | 4/14/2005   | 24   |  |
| Para-dichlorobenzene            | Not Likely To Be Carcinogenic To Humans  | 6/5/2007    | 22   |  |
| Ortho-phenylphenol, sodium salt | Not Likely To Be Carcinogenic To Humans  | 10/12/2005  | 18   |  |
|                                 | Not likely to be carcinogenic to humans at doses that do not cause an irritation response                                      | 10/13/2010  |  |  |
| Folpet                          | in the mucosal epithelium  |             | 10   |  |
| Sulfosulfuron                   | Not Likely to be Carcinogenic to Humans  | 12/16/2008  | 5  |  |
| Cyproconazole                   | Not Likely To Be Carcinogenic To Humans  | 12/4/2007   | 5  |  |
| Acrolein                        | Not Likely To Be Carcinogenic To Humans  | 3/25/2008   | 3  |  |

| Chemical name         | EPA cancer classification   | Report Date | Number of EPA-<br>registered products<br>that contain this<br>chemical |
|-----------------------|---|-------------|--|
| Propazine             | Not Likely To Be Carcinogenic To Humans                             | 12/8/2005   | 2  |
| Methyl isothiocyanate | There are insufficient data to characterize the cancer risk of MITC | 4/30/2009   | 1  |

(Sources: Chemicals Evaluated for Carcinogenic Potential, Office of Pesticide Programs, U.S. EPA, 2015; EPA Pesticide Product Information System; NYC LL37 Agency Reporting Data)

## CHANGES TO THE CALIFORNIA DEVELOPMENTAL TOXIN LIST

Four new pesticides have been added to the developmental toxin list from the California Office of Environmental Health Hazard Assessment since April 1, 2005. Two of those chemicals were already classified by EPA as carcinogens and thus are already prohibited under LL37. Those chemicals are Carbaryl and Molinate. Only two other chemicals were added as developmental toxins since 2005, Nitrobenzene and Avermectin in 2010. Nitrobenzene, is not contained in any currently registered products and Avermectin is a component of numerous containerized insecticide baits but is exempt from prohibition under LL37 in containerized form. This chemical was used by agencies prior to being placed on this list and its continued use in containerized baits is allowed under the exemption provisions of Local Law 37. In the last year its use has decreased by 13%. Table 3 below summarizes the number of registered products and quantities of pesticide products containing each chemical used by city agencies in 2014.

Table 3: Chemicals added to California Office of Environmental Health Hazard Assessment Developmental or Reproductive Toxins List

| Chemical name | California Proposition 65 toxicity classification | Date<br>Listed | Number of EPA- registered products that contain this chemical | Total<br>quantity<br>used by<br>NYC<br>agencies in<br>2014 |
|---------------|---|----------------|---|--|
|               |   | 12/3/2010      | 105   | 2.1 gallons/   |
| Avermectin    | Developmental toxin                               |                |   | 45.1 pounds  |
|               |   | 3/30/2010      | 0   | None   |
| Nitrobenzene  | Male reproductive toxin                           |                |   |  |

(Sources: Chemicals Known to the State to Cause Cancer or Reproductive Toxicity, Office of Environmental Health Hazard Assessment, California EPA, December 4, 2015; EPA Pesticide Product Information System; NYC LL37 Agency Reporting Data)